

(Per ILA Approval Requirements)

CA ☐ Approval

JB ☒ Approval

## **Amendment 396 Contract No. 229944**

### **To the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System**

This Amendment 396 to the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System is entered into this 23<sup>rd</sup> day of August, 2017, by and between Vix Technology (USA) Inc (formerly known as ERG Transit Systems (USA) Inc), a California corporation and wholly owned subsidiary of Vix Mobility Pty Ltd, an Australian corporation, (hereinafter referred to as the "Contractor") and each of the following seven public transportation agencies (hereinafter referred to individually as an "Agency" or collectively as the "Agencies"):

1. Central Puget Sound Regional Transit Authority ("Sound Transit")
2. King County ("King County")
3. Kitsap County Public Transportation Benefit Area ("Kitsap Transit")
4. Pierce County Public Transportation Benefit Area ("Pierce Transit")
5. Snohomish County Public Transportation Benefit Area ("Community Transit")
6. City of Everett ("Everett")
7. State of Washington, acting through the Washington State Department of Transportation, Washington State Ferries Division ("WSF")

### **Recitals**

- A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation and maintenance of the RFC System as specified in the Contract.

- B. The Agencies and the Contractor desire to amend Section VI of Exhibit 9, Price Schedule Special Programs, to compensate the Contractor for the work necessary to modify the existing Terminal Revalue Unit [TRU] device to facilitate communications via Ethernet to the Terminal Revalue Unit [TRU] Server. This work is performed per Change Request (CR-11783) (RFI-733) v4.0 as approved by the Joint Board on June 12, 2017.
- C. The Parties agree that the Work necessary to modify the Terminal Revalue Unit (TRU) to an Ethernet connection will be performed and compensated as described below.

## **Agreement**

### **Section 1.0 Description of Work**

- 1.1 Modify the existing TRU device to facilitate communications via Ethernet to the Site Computer.

#### **Modular Operating System [MOS]**

- 1.2 Create a new Modular Operating System [MOS] release based on the ECU0909 (TRU hardware variant) with Ethernet support. This will be a simple Ethernet connection using the existing Transmission Control Protocol [TCP] / Internet Protocol [IP] network stack, and thus, will not support secure connections such as Secure Shell [SSH].

#### **Terminal Revalue Unit [TRU] Application**

- 1.3 Merge the new Modular Operating System [MOS] release into the Terminal Revalue Unit [TRU] application.
- 1.4 Update the Terminal Revalue Unit [TRU] application and screen flows to facilitate the entry of Ethernet/network binding configurations.
- 1.5 Update the Terminal Revalue Unit [TRU] application and screen flows to allow connectivity through the Ethernet.

#### **Virtual Private Network [VPN] Concentrator**

- 1.6 A Virtual Private Network [VPN] Concentrator will be installed at each Terminal Revalue [TRU] site location in order to facilitate secure connection (via an established dedicated VPN gateway) between a TRU and site computer, utilizing the Ethernet interface that will be retrofitted to existing TRU devices.

#### **System Impact**

- 1.7 Terminal Revalue Unit [TRU] devices with Part Number 18266 will no longer function following this change. These units currently do not have an Ethernet daughterboard, which will be required by the new Modular Operating System [MOS] version. These particular devices will need to be either replaced with the new hardware variant, Part Number ICR5000.AACB (which should already have an Ethernet daughterboard installed), or be fitted with an Ethernet daughterboard.
- 1.8 All Terminal Revalue Units in the field will need to have their existing DB9 serial cable replaced with an Ethernet cable.

- 1.9 All Terminal Revalue Units in the field will also require their case housing to be replaced (required as the new cable gland is larger than the existing cable).
- 1.10 Following the promotion of this change to Production, Terminal Revalue Units in the field will need to have their settings manually reconfigured to use Ethernet (available in Maintainer mode).

### **Waivers**

- 1.11 The solution does not include retailer cost of installing any Ethernet infrastructure at retail locations or any costs incurred during the modification of the retailer firewalls/network environments.

### **Schedule**

#### **Agency and Vix Prerequisite**

- 1.12 A technical team will be established prior to testing. The team will be composed of technical representatives from both Vix and Agencies. This team will confirm with retailer technical representatives that an Ethernet port has been installed, tested and confirmed as working. The team will work with retailers to identify individual Internet Protocol [IP] addresses for each Terminal Revalue Unit [TRU] location.

### **Testing**

- 1.13 Prior to pilot promote to production, Vix hardware team shall:
- (a) Retrofit the Terminal Revalue Unit [TRU] located in the Regional Test Bed [RTB] with new hardware
  - (b) Attach updated cable
  - (c) Attach the amended case to house new cabling
  - (d) Install an Ethernet daughterboard
  - (e) Install and configure a Virtual Private Network [VPN] concentrator.
- 1.14 Prior to pilot promote to production, Vix shall:
- (a) Update the application version and Modular Operating System [MOS] software on the Regional Test Bed [RTB] Terminal Revalue Unit [TRU]
  - (b) Test and confirm that the Regional Test Bed [RTB] modified Terminal Revalue Unit [TRU] is able to upload User Data [UD] and download Configuration Data [CD] via Ethernet
  - (c) Confirm that the modified device is able to perform transactions including, but not limited to, refunds, PugetPass sales, and E-purse sales, via Ethernet.
  - (d) Confirm sales and connection data is available via Reports.orcacard.com.
- 1.15 Prior to pilot promote to production, the Agencies shall:
- (a) Complete a full regression on the Regional Test Bed Terminal Revalue Unit [TRU] device

- (b) Test and confirm that the Reginal Test Bed [RTB] modified Terminal Revalue Unit [TRU] is able to upload User Data [UD] and download Configuration Data [CD] via Ethernet
- (c) Confirm sales and connection data is available via Reports.orcacard.com.

## **Pilot**

1.16 Prior to a full production roll out, the Agencies shall:

- (a) Identify a sampling of retailer locations who's Terminal Revalue Units will be used for pilot
- (b) Confirm with the retailers that there is an available working Ethernet port at the location
- (c) Coordinate with Vix and retailers a date and time that recommissioning of selected pilot devices will take place.

1.17 Prior to a full production roll out, Vix shall:

- (a) Retrofit hardware and install updated software to devices in the Vix workshop:
  - i. Attach updated cable
  - ii. Attach the amended case to house new cabling
  - iii. Install an Ethernet daughterboard
  - iv. Install and configure a Virtual Provider Network [VPN] concentrator.
- (b) Test and confirm that the pilot device is able to download Configuration Data [CD] and upload User Data [UD] via Ethernet
- (c) Coordinate with the Agencies a date and time that the recommissioning of the selected pilot devices will take place
- (d) Create a calendar with installation dates and times for selected pilot retailers
- (e) Travel to pilot destinations and recommission devices
- (f) Send confirmation of successful installation to Agencies.

## **Production Release**

1.18 During full production roll out, the Agencies shall:

- (a) Confirm with remaining retailers that there is an available working Ethernet port at the location
- (b) Coordinate with Vix a date and time that the retrofit and recommissioning of the remaining production devices will take place
- (c) Confirm availability of Agency and retailer resources during installation and recommissioning.

1.19 During full production roll out, Vix shall:

- (a) Retrofit hardware and install updated software to devices in the Vix workshop
  - i. Attach updated cable
  - ii. Attach the amended case to house new cabling
  - iii. Install an Ethernet daughterboard
  - iv. Install and configure Virtual Provider Network [VPN] concentrator.

- (b) Test and confirm that the modified Terminal Revalue Unit [TRU] is able to download Configuration Data [CD] and upload User Data [UD] via Ethernet
- (c) Coordinate with the Agencies a date and time that recommissioning of the remaining devices will take place
- (d) Create a calendar with installation dates and times for remaining retailers
- (e) Travel to remaining retailer destinations and recommission devices
- (f) Send confirmation of successful installation to Agencies.

### **Device Location Updates**

1.20 During recommissioning Vix shall:

- (a) Update all relevant device data in Global Service Management Tool [GSMT] to be reflected in report.

### **Documentation**

The Contractor will update the following documentation:

- SEA-01053 Revalue Network Equipment and Services (DR 8A) - Hardware Specification
- SEA-01054 Revalue Network Equipment and Services (DR 8B) - Functional Specification
- SEA-01274 TRU Screen-Flow
- SEA-01115 Terminal Revalue Unit Operations Manual

### **Section 2.0 Schedule**

2.1 The Work described in Section 1.0 will be completed no later than January 2018.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the sufficiency of which is hereby acknowledged, the Parties hereby agree to amend the Contract as follows:

### Section 3.0 Compensation Changes

Section VI (Implementation) of Exhibit 9, Price Schedule, is hereby amended to read as follows:

## VI. IMPLEMENTATION

### SPECIAL PROGRAMS

<b>LUMP SUM COST</b>
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#### Amendment No. 396

Modify existing Terminal Revalue Unit [TRU] device to communicate via Ethernet to Terminal Revalue Unit [TRU] Server.	
<b>TOTAL</b>	<b>\$260,254</b>

## Section 4.0 Other Terms and Conditions

All other provisions of the Contract not referenced in this Amendment 396 shall remain in effect.

IN WITNESS WHEREOF, authorized representative of the Agencies and the Contractor have signed their names in the spaces provided below.

### Vix Technology (USA) Inc.

By: [Signature]  
Its: Interim GM  
Date: 8-8-17

### The Agencies

By: [Signature]  
Their: ORCA operations Manager  
On behalf of the Agencies  
Date: 8/9/17

### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### City of Everett

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### King County

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

## Section 4.0 Other Terms and Conditions

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### Vix Technology (USA) Inc.

By: [Signature]

Its: Interim GM

Date: 8-8-17

### The Agencies

By: [Signature]

Their: ORCA Operations Manager

On behalf of the Agencies

Date: 8/9/17

### Central Puget Sound Regional Transit Authority

By: [Signature]

Its: Deputy CEO

Date: 8-7-17

### City of Everett

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### King County

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_



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### Vix Technology (USA) Inc.

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### The Agencies

By: \_\_\_\_\_

Their: \_\_\_\_\_

On behalf of the Agencies

Date: \_\_\_\_\_

### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### City of Everett

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### King County

By:  \_\_\_\_\_

Its: *Deputy General Manager*

Date: *8/22/17*

### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

## Section 4.0 Other Terms and Conditions

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### Vix Technology (USA) Inc.

By: [Signature]

Its: Interim GM

Date: 8-8-17

### The Agencies

By: [Signature]

Their: ORCA Operations Manager

On behalf of the Agencies

Date: 8/9/17

### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### City of Everett

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### King County

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Pierce County Public Transportation Benefit Area

By: Michael D. Riffner

Its: acting CEO

Date: 8/16/17

### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

#### Section 4.0 Other Terms and Conditions

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##### Vix Technology (USA) Inc.

By: [Signature]

Its: Interim GM

Date: 8-8-17

##### The Agencies

By: [Signature]

Their: ORCA operation Manager

On behalf of the Agencies

Date: 8/9/17

##### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

##### City of Everett

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

##### King County

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

##### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

##### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

##### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

##### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: [Signature]

Its: Assistant Secretary

Date: 8-23-17

## Section 4.0 Other Terms and Conditions

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IN WITNESS WHEREOF, authorized representative of the Agencies and the Contractor have signed their names in the spaces provided below.

### Vix Technology (USA) Inc.

By: [Signature]  
Its: Interim GM  
Date: 8-8-17

### The Agencies

By: [Signature]  
Their: ORCA Operations Manager  
On behalf of the Agencies  
Date: 8/9/17

### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### City of Everett

By: [Signature]  
Its: Transportation Services Director  
Date: 8/17/17

### King County

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

## Section 4.0 Other Terms and Conditions

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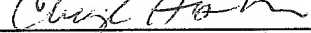
### Vix Technology (USA) Inc.

By: 

Its: Interim PM

Date: 8-8-17

### The Agencies

By: 

Their: ORCA operation Manager

On behalf of the Agencies

Date: 8/9/17

### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### City of Everett

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_


### King County

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Kitsap County Public Transportation Benefit Area

By: 

Its: Executive Director

Date: 8/21/2017

### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Snohomish County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

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### Vix Technology (USA) Inc.

By: [Signature]

Its: Interim GM

Date: 8-8-17

### The Agencies

By: [Signature]

Their: ORCA Operations Manager

On behalf of the Agencies

Date: 8/9/17

### Central Puget Sound Regional Transit Authority

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### City of Everett

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### King County

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Kitsap County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Pierce County Public Transportation Benefit Area

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

### Snohomish County Public Transportation Benefit Area

By: [Signature]

Its: Emmett Heath, Chief Executive Officer

Date: 8-22-17

### Washington State Ferries, acting through the Washington State Department of Transportation Ferries Division ("Washington State Ferries")

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_